Issue 3, July 2022

iNEAL newsletter

Welcome to the 3rd issue!

Dear reader,
The 3rd iNEAL newsletter is already in front of you, which we hope will reveal and illustrate the colourful and full of activities of the last six months of the Action. We are pleased that almost halfway through the Action the iNEAL community is constantly expanding and already unites participants from 29 countries. The wide range of opportunities, as well as the growing interest in them, only confirms the relevance of the pan-European phenomenon of Neanderthals.
In this newsletter you will find traditional sections with the latest scientific news and a variety of useful links - check out the News, Knowledge Box and Recommendations. This time we are pleased to introduce the Working Group 2 (WG2) – Cultural data, one of the main aims of which is the exchange of knowledge and research experience on cultural data related to Neandertals from various sites and countries. Also meet the leader of WG2, the Italian archaeologist - Francesca Romagnoli as well as our partners too - Department of Prehistory and Archaeology, Universidad Autónoma De Madrid-UAM.
Different countries, different topics but the common goal - to train early career investigators in various disciplines and develop an understanding of specific practices that will help them in their future research. More than 50 young researchers took part in the 3 training schools, 19 lecturers shared scientific knowledge, encouraged and motivated to explore, discover new topics and methods. This would not be possible without strong teams of Work Groups who also had the opportunity to meet, discuss and develop their activities.

Contents

Editorial 1
News 2
Get to know 8
Knowledge box 8
Partners in the spotlight 9
Visit 10
Recommendations 11
Looking forward..... 11
Impressum 12

It is important not only to be interested but also to participate! We are happy to remind you that iNEAL is an open and up-to-date community of new people, ideas, research and more. Let's meet at the EAA Annual Meeting in Budapest (31 August - 3 September) and visit session "Integrating Neandertal Legacy: New Opportunities for Cooperation" organized by iNEAL. Follow our news, be a part of our trainings and other events, expand your scientific activities with other opportunities offered by iNEAL!

Agnė Žilinskaitė, editor-in-chief

Funded by the European Union

cost EUROPEAN COOPERATION IN SCIENCE & TECHNOLOGY

CA19141 iNEAL INTEGRATING NEANDERTAL LEGACY: FROM PAST TO PRESENT

News

WORKING GROUPS MEETINGS

2nd Working Groups meeting in Germany

Our 2nd Working Group meeting (and the first one in person) was held between October 11th – 12th 2021, at Eberhard Karls University of Tübingen, in the beautiful German city of Tübingen. We have to thank our wonderful host and our WG 1 leader, dr. Katerina Harvati and her team for making this experience both very fruitful and enjoyable. During the two days WG members discussed many issues and made decisions how to proceed during the next grant period. The participants had the chance to visit the facilities and see the collections at the nearby museum.

3rd Working Groups meeting in Italy

The 3rd Working Group meeting of our Action took place in Ravenna, Italy, between 6th and 7th of June 2022. Hosted by our Vice-chair, dr. Stefano Benazzi, the meetings were held at the University of Bologna facilities in Ravenna. Wonderfully organized the meeting gave the WG members a chance to discuss the most pressing issues and plans related to creation of the iNEAL database and datasets, as well as future publication and dissemination plans. We have seen several laboratories and met with the members of Stefano's young and fruitful team - the next generation of researchers, while enjoying the Ravenna weather.

News

Working Group 4 (From Past to Present) Training School

Valorization of Neanderthal heritage through the creation of cultural routes

The first WG 4 Training School, entitled Valorization of Neanderthal Heritage through the Creation of Cultural Routes took place in Zagreb, Croatia, between 27-29 September 2021. The main organizer was the Archaeological Museum in Zagreb.

The school was designed as a capacity-building endeavour which brought together 5 trainers and 15 trainees from eleven countries (Croatia, Czech Republic, France, Germany, Hungary, Italy, Lithuania, Malta, Poland, Slovenia, Switzerland). During the three days of the school, the trainees were introduced to the general idea of a pan-continental European cultural route dedicated to the Neanderthals (trainer: Sanjin Mihelić), took an online guided tour of the Neanderthal Museum Mettmann and learned about valorization at the authentic place of the original discovery of the Neanderthal at Feldhofer Cave (trainer: Bärbel Auffermann); discussed VR Technology as off-site interpretation and learning tool (trainer: Kasper Rodil); and participated in two workshops – both dedicated to the creation of cultural routes and held by an archaeologist (Marko Mele) and a tourism expert (Vlasta Klarić) respectively. Squeezed between the indoors activities during first and the third day was the field excursion to two foremost Neanderthal sites in Croatia – Vindija and Krapina. Vindija is an imposing cave now famous primarily as the main source of Neanderthal skeletal material used in the sequencing of the Neanderthal genome. Krapina—to this day the site with the highest yield of Neanderthal bones of all—was a rockshelter that eventually disappeared by sand quarrying during the 19th/20th centuries, but which now boasts an impressive and cutting-edge museum which yearly attracts hundreds of thousands of visitors: the Museum of Krapina Neanderthals.

"Training School on the valorization of Neanderthal heritage through the creation of cultural routes consisted of a mix of lectures and workshops with many specialists with various backgrounds. This meeting was eye-opening for me in topics on cultural heritage and the need to improve the communication between the science community and the public. Also, the participants represented a diverse group with interests in many cases not directly connected with Neanderthals, which was surprising to me at first, but actually provided insights from many angles. The meeting was fruitful in countless discussions about the Neanderthal legacy and ways of presenting them. This training school provided a lot of inspiration, ideas, and connections that will hopefully develop in the future."

Martyna Lech

Participant of the Training School

News

Working Group 4 (From Past to Present) Training School
Neandertals in education

The second WG 4 Training school—entitled Neanderthals in Education—was masterfully organized by the professionals of the iconic Neanderthal Museum in Mettmann (Bärbel Auffermann, Beate Schneider, Till Knechtges and others), Germany, between 26-28 April 2022.

The school was divided into three distinct sections, each of which covered a full day of training: during the first, the training focused on the Exhibition as a learning space; the second was dedicated to Programmes and the target group-specific approach, while the third centered on Digital learning in museums. The fifteen trainees, which came from eight different countries, were immersed in a highly interactive learning environment which constantly demanded active participation by all in thought-provoking workshops. It may not have been an easy task to build their own Neanderthal-themed exhibition let alone to develop one's own programme to bring the Stone Age to different target audiences, or any of the other tasks that were put before the trainees, but they responded in a more than commendable manner. And now, thanks to the Mettmann team, next time—in real life—they will find these tasks all the more easier to solve!

Other highlights of the training school definitely include ample wanderings around the outstanding eponymous museum and the visit to the original site of the Feldhofer Cave in the Neander Valley.

"Attending the training school organized by INEAL was a very positive experience and I had a great time. Although the program was already promising, it turned out to be even better than expected. The opportunity of being able to learn in a museum setting and share ideas with other people from different fields and backgrounds but with the same goals has made it even more enriching. And being given firsthand the secrets of a museum and tips for a better dissemination of archaeological knowledge has been very constructive. The group activities were the best, as we were able to share different ideas and perceptions that led us to develop and improve creativity. After three days of brainstorming one feels the enthusiasm, more prepared and determined to bring closer the past from a variety of approaches and means to a wide audience."

Bárbara Rodríguez

Participant of the Training School

News

Working Group 2 (Cultural Data) Training School

The technological variability at the transition between Middle to Upper Palaeolithic!

Working Group 2 (Cultural Data) Training School was held between May 4th – 6th 2022, at the Institute of Archaeology, Czech Academy of Sciences in Brno (Czech Republic). The Training School was designed as a capacity-building endeavour aimed at bringing together an international team of researchers and students around a key topic in Neanderthal studies: the technological variability of last Neanderthals and first Homo sapiens. The participants discussed the main techno-typological characteristics of assemblages, the problems in their definition and interpretation, and the perspectives opened by recent researches. The School was organized as a three-day event, which involved lectures, discussions, workshops, and on-site presentations. During the School, the participants analysed archaeological materials and compared similarities and differences of techno-typological characteristics between different assemblages.

At the school participated 30 researchers, coming from 14 different countries. All the participants briefly presented their work and discussed problems and perspectives in the understanding and interpretation of 'transitional industries' in a very informal and pleasant working environment. Main presentations an discussion was handled by Petr Skrdla (Institute of Archaeology, Czech Academy of Sciencs, Czech Republic) who was the local organiser, Zsolt Mester (Eötvös Loránd University, Hungary), Adrian Nemergut (Slovak Academy of Sciences, Slovakia), Omry Barzilai (Israel Antiquities Authority, Israel), Vitaly Usik (National Academy of Sciences of Ukraine, Ukraine), and Francesca Romagnoli (Universidad Autónoma de Madrid, Spain). Participants could therefore discuss the specificities of transitional industries across Eurasian regions.

Francesca Romagnoli, Universidad Autónoma de Madrid, Spain

News

Our warmest congratulations to colleagues who have produced a wonderful book

"UPDATING NEANDERTHALS. Understanding Behavioural Complexity in the Late Middle Palaeolithic"

Edited by

FRANCESCA ROMAGNOLI, Departamento de Prehistoria y Arqueología, Universidad Autónoma de Madrid, Madrid, Spain;

FLORENT RIVALS, ICREA at the Institut Català de Paleoecologia Humana i Evolució Social, Tarragona, Spain;

STEFANO BENAZZI, Dipartimento di Beni Culturali, Università di Bologna, Bologna, Italy.

The book provides the most up-to-date and comprehensive knowledge of Neanderthals who lived throughout the European and Asian continents. Focusing on the last phase of Neanderthal settlements and behaviours in Europe, the Levant and across Asian regions, the book synthesises historical information about the study of Middle Palaeolithic populations and presents the current debates about their biology, subsistence, technology, and social and cognitive behaviours.

Written by international experts on the Middle Palaeolithic who have conducted innovative studies in the last three decades, the book explores the diversity and variability of human adaptations and behaviours in the changing climate and environment of the Late Pleistocene, and the relationships between these behaviours, demography, and cognitive capabilities. The book also discusses theoretical issues and evidences how novel methods have improved our knowledge of human evolution. It also explores the new findings about the Denisovans and the arrival of Homo sapiens and explores the implications of interaction between different human populations. The complete multidisciplinary approach includes archaeology, paleoecology, genetics, and paleoanthropology, transcending a 'case study approach' to present Neanderthals in the most complete way.

Updating Neanderthals: Understanding Behavioural Complexity in the Late Middle Palaeolithic is a reference for researchers, students, and advanced amateurs in prehistory, archaeology, human evolution studies, evolutionary psychology, paleoecology, and cultural evolution.

News

Key Features

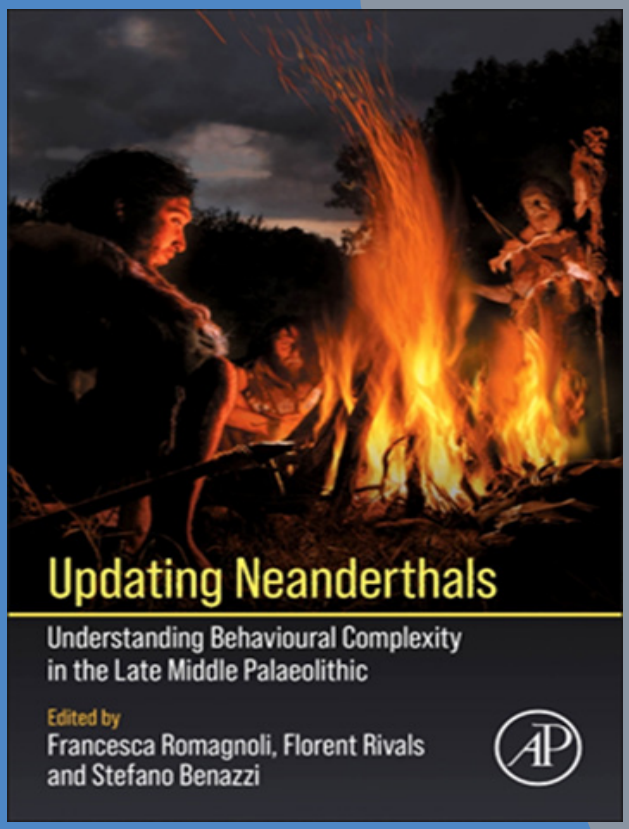
• Offers a comprehensive update on the variability and diversity of Neanderthal behaviours during the Late Pleistocene

• Presents an interdisciplinary reconstruction of Neanderthals by assessing archaeology, paleontology, paleoecology, paleoanthropology, genetics, and cognition

• Critically reviews the reliability of archaeological data and the theoretical and methodological advances of the last 30 years

• Discuss the most debated Neanderthal themes, such as genetics, diet, socio-economy and art.

Table of Contents



1. Updating Neanderthals: Taking stock of more than 160 years of studies

2. The climatic and environmental context of the Late Pleistocene

3. Diet and ecological interactions in the Middle and Late Pleistocene

4. Different species on the horizon: The Denisova hominins

5. Neanderthal: Anatomy, genes, and evolution

6. The Neanderthal brain: Biological and cognitive evolution

7. Selection versus opportunism: A view from Neanderthal subsistence strategies

8. Small animal use by Neanderthals

9. The use of plants by Neanderthals as food, medicine, and raw materials

10. Neanderthal technological variability: A wide-ranging geographical perspective on the final Middle Palaeolithic

11. The organisation of living spaces in Neanderthal campsites

12. Fire among Neanderthals

13. "Art": Neanderthal symbolic graphic behaviour

14. Spiritual and symbolic activities of Neanderthals

15. Beyond European boundaries: Neanderthals in the Armenian Highlands and the Caucasus

16. Methodological advances in Neanderthal identification, phylogeny, chronology, mobility, climate, and diet

17. The arrival of Homo sapiens in the Near East and Europe

Foreword by Nicholas J. Conard. The book is published by Academic Press.

Product details
No. of pages: 382
Language: English

Published: July 1, 2022
Imprint: Academic Press
Paperback ISBN: 9780128214282

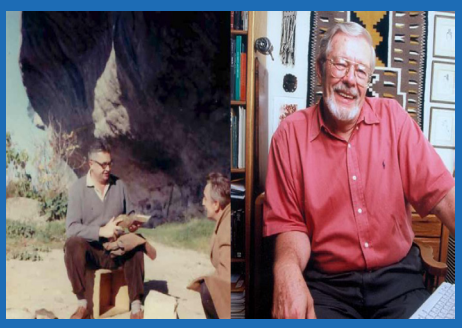
eBook also available

https://www.elsevier.com/books/updating-neanderthals/romagnoli/978-0-12-821428-2

Get to know: CA19141 – iNEAL working group 2

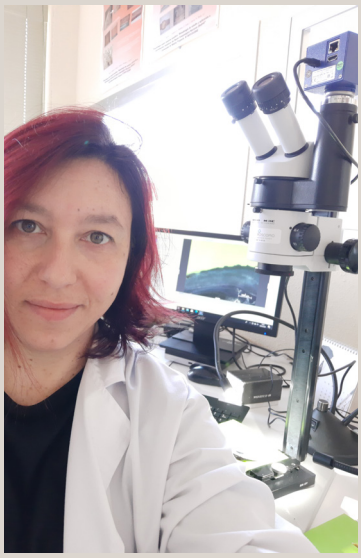
iNEAL working group 2 (WG 2) is dedicated to behavioral aspects of Neandertals. However, to understand behavior, it is not enough to study the cultural data sensu stricto (or the remains of the tools Neandertals left behind). To understand complex behavioral patterns of Neandertals in the context of their time and geography, including the changing environmental conditions, we need experts of many trades, including archaeologists, archaeozoologists, dating experts, and many others. Therefore, this group is dedicated to collecting various and vast amounts of data from Europe and other regions that were once a part of the Neandertal world. This group closely collaborates with WG1 and WG2 as behavior, environment, population dynamics are all a part of a single story about these interesting prehistoric humans. In addition, the collected datasets will provide a starting point for many future projects and collaborations and help to bridge many biases that affected the state of research in different countries.

Knowledge Box: The First Neandertal



In the 1980s, François Bordes (1919-1981), a prestigious European archaeologist was challenged by Lewis Binford (1931-2011), a young American anthropologist about the meaning of Neanderthal assemblages. The first considered the diversity as result of different cultures, from different functions performed in each site. This passioned debate changed our way of interpreting the archaeological record and is still today a landmark of how different backgrounds can bias the archaeological and paleoethonographic interpretation. It also stands as an example of how passioned discussions can boost growing respect and friendship between academics rather than unethical manners and enmity.

Partners in the spotlight - Francesca Romagnoli



Francesca Romagnoli is an Italian archaeologist specialised in the study of Neanderthal socio-economy and technological changes in Mediterranean regions, with a special focus on coastal adaptations. Her research ranges from (i) stone tool and shell past technologies (morpho-technical analysis, refitting, 3D geometric morphometric, and experimental archaeology), (ii) the relationships between human mobility, technological costs, and stone tool resources, (iii) the appearance of behavioural complexity in human evolution, to (iv) taphonomy, site formation processes, and intra-site geostatistics. She is also interested in theoretical and methodological approaches for archaeological narrative building in museums and outreach activities and in evaluating the social impact of research in Prehistory.

She was awarded her International Ph.D. at both the Università di Firenze (Italy) and Rovira i Virgili (Spain) in 2012. She was recipient of a Marie Skłodowska-Curie Individual Fellowship in 2014 and a Wenner-Gren Grant (2016). Since 2017, she coordinates the "Shell tools Working Group" in the European Research Network in Taphonomy-IRN-TAPHEN in collaboration with David Cuenca Solana (IIIPC- Universidad de Cantabria) and Laura Manca (Muséum national d'Histoire naturelle Paris). Since 2017, she is Professor at the Universidad Autónoma de Madrid (Spain) where she is also Coordinator of the official Master School in Archaeology and Heritage. Several research stays at different leading institutions and research collaborations in different European countries allowed her to build a solid, interdisciplinary research network and achieve an internationally recognised expertise in her field of study, as reflected in her track record. She has published and co-authored more than 60 scientific publications and organised international symposia in Europe (Italy, Spain, France, and Germany) and abroad (Japan and Argentina).

She has leaded and participated in several international and national research projects and she conducted fieldworks in Palaeolithic sites in Europe (Italy and Spain) and in the Horn of Africa. Currently, she is co-directing with Ella Assaf (Tel Aviv University) a fieldwork project in central Israel in collaboration with Viviane Slon (Tel Aviv University), and she is collaborating in fieldwork projects in Department of Prehistory and Archaeology, Universidad Autónoma De Madrid-UAM.

Visit our partners - Department of Prehistory and Archaeology, Universidad Autónoma De Madrid-Uam

It is a leading department in Spain in Prehistory and Archaeology characterised by high-standing research and research-based teaching. The working group in Palaeolithic Archaeology brings together researchers with a great experience in fieldworks, stone tool analysis (raw material characterisation, technology, and mobility), and experimental archaeology. It is specialised in (i) the most ancient human and cultural evolution in Africa, (ii) Neanderthals in the Iberian Peninsula and in Southern Europe, and (ii) the spread of Homo sapiens (Africa and Western Europe). Multiple research projects are currently ongoing, supported by national and international competitive funding. The working group is also interested in theoretical and methodological aspects and develops research and training for students in quantitative archaeology, spatial analysis and geostatistics, the analysis of ancient technologies, and experimental archaeology.

The Department of Prehistory and Archaeology at UAM holds pioneer research laboratories internationally recognized by their contributions to Archaeology and Cultural Heritage Preservation. The laboratories offer teaching and research facilities.

The Prehistory and Archaeology Lab develops research and training for students and researchers in use-wear and microscopic analysis, image processing and infographic techniques, sample extraction and preparation for different analytical procedures and techniques, cleaning and restoration of different archaeological materials (stones, shells, bones, pottery, and metals), and the processing of fieldwork data.

The Experimental Archaeology Lab (LAEX-UAM) develops experimental research related to archaeological materials, including technology and use-wear analyses, and a renowned transference program based on the elaboration and recreation of prehistoric tools, helping to understand the hunter-gatherer's lifeways. These educational and outreach activities have promoted its participation in several international projects and its inclusion in the EXARC European network.

The Forensic Archaeology Lab (LaFUAM) develops research in Bioarchaeology and Forensic and Funerary Archaeology. It offers to students and researchers an invaluable resource for training thanks to a large osteological collection and collaborations with the UAM Institute of Forensic Sciences.

The Conservation, Restauration and Scientific Studies of the Archaeological Heritage Service (SECYR-UAM) is focused on the preservation and analysis of materials aiming at the promotion of social awareness on the cultural heritage. A complete network of staff and collaborators from different research fields as archaeology, physics, chemistry, and conservation, constitute this interdisciplinary team. The multidisciplinary and specialized research of this laboratory has made possible its recent inclusion in the European Research Infrastructure for Heritage Science (E-RIHS).

Recommendations

Recommendation #1

Journal of Quaternary Science (JQS v.37 (2) February 2022 pages i-iii, 133-393) published a Special Issue with studies focusing on peninsular southern Europe (Iberia, Italy, the Balkans) as possible refugia during the Middle Paleolithic and the transition to Upper Palaeolithic. Sixteen papers (most open access) discuss the complexity of the transition period that led to the demise of Neanderthals.

Special issue: Peninsular southern Europe refugia during the Middle Palaeolithic

Image: Sites with Middle and Early Upper Palaeolithic sequences in south-eastern Europe (Borić et al. 2022, Figure 1).

Recommendation #2

Hardy et al., (Journal of Human Evolution 162, (2022): 103105) "Reconstructing Neanderthal diet: The case for carbohydrates" address the issue of the traditional perception of the animal-based diet and the physiological need for carbohydrates in a human diet. The authors point out that the lack of evidence for plants in the diet of Neanderthals as reconstructed by stable isotope analysis might be due to the weak nitrogen signal from plants and complexity in reading the high nitrogen signal. Three options explaining the discrepancy between the archaeological evidence and physiological need for carbohydrates are discussed: genetic adoption, surviving but not thriving and a diet made of plants and proteins.

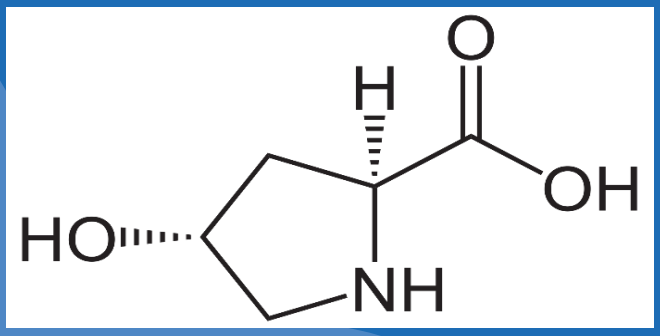
Fruits of Celtis sp. (Hackberry) were found at archaeological sites associated with Neanderthals and are listed as 'Edible' (Hardy et al., 2022, Table 4). Illustration from Wikipedia (public domain). Original book source: Prof. Dr. Otto Wilhelm Thomé Flora von Deutschland, Österreich und der Schweiz 1885, Gera, Germany

Recommendation #3

Hopkins et al., Radiocarbon 64 (2022): 87-100, "Single Amino Acid Radiocarbon Dating of Two Neanderthals Found at Sal'a (Slovakia)": radiocarbon dating of hydroxyproline enabled dating of highly degraded collagen of the Neanderthal remains to older than 45,100 BP therefore before arrival of AMHs in the region.

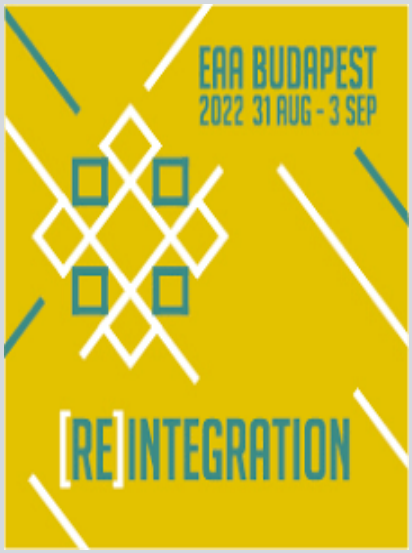
DOI: https://doi.org/10.1017/RDC.2021.113

Structure of hydroxyproline (C5H9NO3) (Public Domain Wikipedia). Radiocarbon analysis of this major component of the protein collagen help to avoid contamination.



Looking forward to the EAA Annual Meeting

iNEAL Session at the 28th European Association of Archaeologists' Annual Meeting in Budapest, 3rd August 2022



Just like last year in Kiel, iNEAL Action is once again organizing a session at the largest archaeological conference in Europe – the annual meeting of the European Association of Archaeologists, which this year takes place at the end of August and in early September in the Hungarian capital of Budapest. The session was convened by our MC members from Croatia (Sanjin Mihelić) and Slovenia (Tamara Leskovar).

The session's title—Integrating Neandertal Legacy: New Opportunities for Cooperation—exemplifies the broad nature of the gathering, which mirrors that of the iNEAL Action itself in the wish to bring together different perspectives and various types of expertise on Neanderthals as the way to bridge the geographic, language, disciplinary-and-data specific gap, as well as a gap created by traditions of different disciplines in different European countries.

The session proposal included an emphatic invitation for contributions that offer proactive, realistic and feasible solutions leading to synergistic effects in research, management and valorisation of Neandertal heritage. The response was extremely positive – with 16 accepted oral presentations and ample opportunity for discussion, the session will take one full day of the conference: we hope you will join us, too!

Content of the session:

As a direct beneficiary of a century and a half's research on Neandertals, our present-day scholarly community has at its disposal a vast amount of data pertaining to an incredibly diverse spectrum of facets of this long-lost relative and predecessor of ours. However, during this long period, scientific methods, technological and methodological aspects, theory and practices have developed at different paces—and sometimes followed several trajectories—in different countries. As such, it can often be difficult to evaluate and compare various datasets dealing with Neandertal legacy, whether biological, cultural or other. Likewise, for numerous reasons, problems exist in relation to access to data and information for various sites and finds. In addition, the research questions asked by different groups and scholars from not only separate disciplines, but sometimes from the same disciplines but following diverse traditions, as well as from a variety of countries, are often difficult to compare, even if their goal is the same.

These overall shortcomings in Neandertal research and in the general management of Neandertal heritage have recently been addressed by an international initiative—a COST programme Action entitled 'Integrating Neandertal Legacy: From Past to Present'—which aims to collate a long-term network of scientists with the goal of creating a usable and inclusive, inter- and multidisciplinary database and data sharing platform for all those interested in Neandertals.

As a follow up to the last year's EAA conference in Kiel, we would once again like to invite all those interested in different aspects of Neandertals and their legacy to join us with their presentations thereby contributing to bridging the geographic, linguistic, disciplinary-and-data specific gaps, as well as the issues created by the diverse traditions of different disciplines operating in various European countries.

More information and scientific programme of the EAA Annual Meeting in Budapest:

https://www.e-a-a.org/eaa2022

Impressum

Want to contribute to the Action?
Learn more at:
http://inealcost.inantro.hr/

Funded by the European Union

cost
EUROPEAN COOPERATION IN SCIENCE & TECHNOLOGY

CA19141
iNEAL
INTEGRATING NEANDERTAL LEGACY: FROM PAST TO PRESENT